

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF INDIANA**

DISPLAY TECHNOLOGIES, LLC,	§	
	§	
Plaintiff,	§	Case No: 3:19-cv-699
	§	
vs.	§	PATENT CASE
	§	
FURRION, LLC	§	JURY TRIAL DEMANDED
	§	
Defendant.	§	
	§	

**COMPLAINT**

Plaintiff Display Technologies, LLC (“Plaintiff” or “Display”) files this Complaint against Furrion, LLC (“Defendant” or “Furrion”) for infringement of United States Patent No. 9,300,723 (the “723 Patent”).

**PARTIES AND JURISDICTION**

1. This is an action for patent infringement under Title 35 of the United States Code. Plaintiff is seeking injunctive relief as well as damages.

2. Jurisdiction is proper in this Court pursuant to 28 U.S.C. §§ 1331 (Federal Question) and 1338(a) (Patents) because this is a civil action for patent infringement arising under the United States patent statutes.

3. Plaintiff is a Texas limited liability company with a place of business at 1801 NE 123rd Street, Suite 314, North Miami, FL 33161.

4. On information and belief, Defendant is a Delaware limited liability company with a principal office address of 52567 Independence Ct., Elkhart, IN 46514. On information and belief, Defendant may be served through its agent, Corporation Service Company, at 135 North Pennsylvania St., Suite 1610, Indianapolis, IN, 46204.

5. This Court has personal jurisdiction over Defendant because Defendant has committed, and continues to commit, acts of infringement in this District, has conducted business in this District, and/or has engaged in continuous and systematic activities in this District.

6. Upon information and belief, Defendant's instrumentalities that are alleged herein to infringe were and continue to be used, imported, offered for sale, and/or sold in this District.

### **VENUE**

7. On information and belief, venue is proper in this District under 28 U.S.C. § 1400(b) because Defendant is deemed to be a resident of this District. Alternatively, acts of infringement are occurring in this District and Defendant has a regular and established place of business in this District.

### **COUNT I** **(INFRINGEMENT OF UNITED STATES PATENT NO. 9,300,723)**

8. Plaintiff incorporates paragraphs 1 through 7 herein by reference.

9. This cause of action arises under the patent laws of the United States and, in particular, under 35 U.S.C. §§ 271, *et seq.*

10. Plaintiff is the owner by assignment of the '723 Patent with sole rights to enforce the '723 Patent and sue infringers.

11. A copy of the '723 Patent, titled "Enabling social interactive wireless communications," is attached hereto as Exhibit A.

12. The '723 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

13. Defendant has infringed and continues to infringe one or more claims, including at least Claims 12, 14, 16, 17, and 20 of the '723 Patent by making, using, and/or selling media

systems covered by one or more claims of the ‘723 Patent. For example, Defendant makes, uses, and/or sells the DV7100 media system with NFC and Bluetooth wireless technology, and any similar products (“Product”). Defendant has infringed and continues to infringe the ‘723 Patent in violation of 35 U.S.C. § 271.

14. Regarding Claim 12, the Product is configured to receive a media file (e.g., music file) from a wireless mobile device (e.g., mobile phone) over a communication network (e.g. Bluetooth network or NFC). The wireless mobile device (e.g., mobile phone) sends data (e.g., music file) to the media system. The wireless mobile device is a passive NFC device, whereas the media system is an active NFC device as it can receive the data during wireless transmission. Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with other allegations herein.



DV7100 Series Black Wall Mount Stereo Entertainment System by Furrion®. The DV7100 entertainment system is super slim. And with front access HDMI connectivity, Bluetooth, NFC technology and mobile app control, it's also super easy to use.

- Bluetooth connectivity with NFC quick-touch connection

**Quick-touch wireless streaming**

NFC communication allows the user to hold their NFC compatible device over the DV-Series System entertainment system and stream music without needing to go through multiple steps setting up a connection.

Source: <https://www.boatid.com/furrion/dv7100-series-wall-mount-stereo-entertainment-system-mpn-424732.html>

There are two different types of NFC: active and passive. Active NFC, which is currently used on many Android devices, as well as the new Apple devices, can send and receive data. One major use of NFC is storing and transferring contact or credit card information. With apps such as Google Wallet on Android phones, you can simply tap your device to pay at stores.

Passive NFC, on the other hand, can only send data.

Source: <https://thetartan.org/2014/9/15/scitech/howthingswork>

15. The Product includes a wireless receiver (e.g., Bluetooth receiver). Certain aspects of this element are illustrated in the screenshots below and/or in those provided in connection with other allegations herein.

Bluetooth: 4.0

Source: <https://www.boatid.com/furrion/dv7100-series-wall-mount-stereo-entertainment-system-mpn-424732.html>



Source: [http://www.primetimerv.com/download/ComponentManuals/Furrion\\_MS-DV7100.pdf](http://www.primetimerv.com/download/ComponentManuals/Furrion_MS-DV7100.pdf)

16. The Product includes a security measure (e.g., Bluetooth PIN). Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with

other allegations herein.

**Bluetooth Handsfree System:**

**1. Pairing**

Turn on Bluetooth mode of mobile phone, then select the function of Finding Bluetooth Device and enter it. After finishing the finding, it will show the name of Bluetooth Device **FURRION DV7100-XXXX** (where X can be any character **A-Z** or number **0-9** ), select it and enter it, (for some phones it maybe need a password. In case of this situation please Input the password 0000), then the unite will display "BT LINK".

Source: <https://www.forestriverinc.com/brochures/0000/0000FurrionDV7100Manual.pdf>

17. The Product is disposed in an accessible relation to at least one interactive computer network (e.g., Bluetooth network) that has a wireless range structured to permit authorized access (e.g., via pairing code) to said at least one interactive computer network. Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with other allegations herein.

- Bluetooth connectivity with NFC quick-touch connection

Source: <https://www.boatid.com/furrion/dv7100-series-wall-mount-stereo-entertainment-system-mpn-424732.html>



Source: [http://www.primetimerv.com/download/ComponentManuals/Furrion\\_MS-DV7100.pdf](http://www.primetimerv.com/download/ComponentManuals/Furrion_MS-DV7100.pdf)

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18. When the wireless mobile device is within the wireless range, the wireless mobile device is detectable by the media system (e.g., the media system automatically detects a

smartphone with NFC when placed within NFC range). Data transmission through NFC is done by two devices: polling device and listening device. The polling device is the one that initiates the communication link and the listening device is the one that detects the signal. In the Product, the media system is the polling device and the wireless mobile device is the listening device. The media system (active NFC) sends electromagnetic signals within a certain area. The mobile phone (passive NFC) detects the signals and the connection is established. As the electromagnetic signals are being initiated by the media system, the media system behaves as an initiator (polling device) and the mobile device phone behaves as a target (listening device). Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with other allegations herein.

- Bluetooth connectivity with NFC quick-touch connection

**Quick-touch wireless streaming**

NFC communication allows the user to hold their NFC compatible device over the DV-Series System entertainment system and stream music without needing to go through multiple steps setting up a connection.

Source: <https://www.boatid.com/furion/dv7100-series-wall-mount-stereo-entertainment-system-mpn-424732.html>

- NFC enables your smartphone to send digital information to stereo from up to 1.6" away

Source: <https://www.etrailer.com/RV-Stereos/Furion/DV7100.html>

**9. To setup your Stereo using NFC(only support mobile phone with NFC function)**

- 1) Turn on the NFC function of your mobile phone and make sure the screen is active and unlocked.
- 2) With the NFC detection area of your phone touch with the NFC detection area of the Stereo, you can connect or disconnect your mobile phone with the Stereo conveniently.

Note: For the first time pair and connect, it will ask you to input a password. The password is "0000".

Source: <https://www.forestriverinc.com/brochures/0000/0000FurionDV7100Manual.pdf>



**Reference Polling Device:**

When connected to a suitable signal generator and power amplifier, an NFC Forum reference polling device sends commands to a listening device. The response from a listening device can then be captured and analyzed by measurement equipment.

**Reference Listening Device:**

The NFC Forum reference listening device analyses the signal sent out by a polling device. For analyzing the frequency and wave-shapes of these signals, the NFC Forum reference listening device is equipped with an integrated sense coil. The NFC Forum reference listening device can also send information back to a polling device, using various levels of load modulation generated using an external suitable signal source like an arbitrary waveform generator.

Source: [https://cdn.rohde-schwarz.com/pws/dl\\_downloads/dl\\_application/application\\_notes/1ma182/1MA182\\_5E\\_NFC\\_WHITE\\_PAPER.pdf](https://cdn.rohde-schwarz.com/pws/dl_downloads/dl_application/application_notes/1ma182/1MA182_5E_NFC_WHITE_PAPER.pdf)

NFC has many uses, but how does it work? According to the blog Android Authority, NFC is just another wireless transmission standard. But unlike Bluetooth or Wi-Fi, it is able to send information passively. It does this by using a process called electromagnetic induction. When an active NFC component comes near a passive component, the active component's electromagnetic field causes small currents to flow through the passive part. The generated power allows the passive NFC to send data whenever the active part is nearby. Close proximities allow for a stronger electromagnetic field to affect the NFC, which is why most devices need to be so close to each other to transfer valuable information.

Source: <https://thetartan.org/2014/9/15/scitech/howthingswork>

19. At least one digital media file (e.g., music file) is initially disposed on the wireless mobile device (e.g., the mobile phone includes one or more music files). Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with other allegations herein.

**Quick-touch wireless streaming**

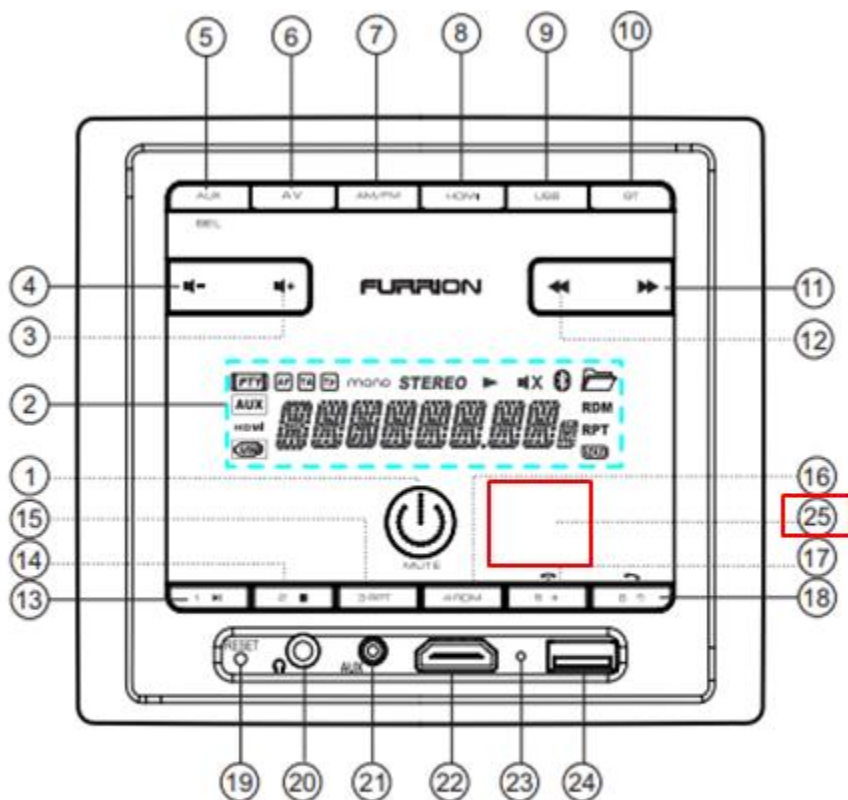
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Source: <https://www.boatid.com/furriion/dv7100-series-wall-mount-stereo-entertainment-system-mpn-424732.html>

- Bluetooth hands free connectivity with NFC quick-touch connection-  
play audio files from your phone to your wall mount stereo.

Source: <https://www.amazon.com/Furrion-DV7100-Single-Bluetooth-Stereo/dp/B07CMG5HP9>

20. The media system is structured to detect the wireless mobile device disposed within the wireless range (e.g., media system automatically detects the mobile phone when placed within NFC range). The media system (active NFC) sends electromagnetic signals within a certain area. The mobile phone (passive NFC) detects the signals and the connection is established. Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with other allegations herein.



25.NFC DETECTION AREA



9. To setup your Stereo using NFC(only support mobile phone with NFC function)
  - 1) Turn on the NFC function of your mobile phone and make sure the screen is active and unlocked.
  - 2) With the NFC detection area of your phone touch with the NFC detection area of the Stereo, you can connect or disconnect your mobile phone with the Stereo conveniently.

Note: For the first time pair and connect, it will ask you to input a password. The password is "0000".

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Source: <https://thetartan.org/2014/9/15/scitech/howthingswork>

21. A communication link (e.g., NFC) is structured to dispose the media system and the wireless mobile device (e.g. mobile phone) in a communicative relation with one another via the at least one interactive computer network. Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with other allegations herein.

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- Bluetooth hands free connectivity with NFC quick-touch connection-play audio files from your phone to your wall mount stereo.

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**9. To setup your Stereo using NFC(only support mobile phone with NFC function)**

- 1) Turn on the NFC function of your mobile phone and make sure the screen is active and unlocked.
  - 2) With the NFC detection area of your phone touch with the NFC detection area of the Stereo, you can connect or disconnect your mobile phone with the Stereo conveniently.
- Note: For the first time pair and connect, it will ask you to input a password. The password is "0000".

Source: <https://www.forestriverinc.com/brochures/0000/0000FurionDV7100Manual.pdf>

22. The communication link is initiated by the media system (e.g., the media system sends electromagnetic signals which are detected by the mobile phone). Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with other allegations herein.

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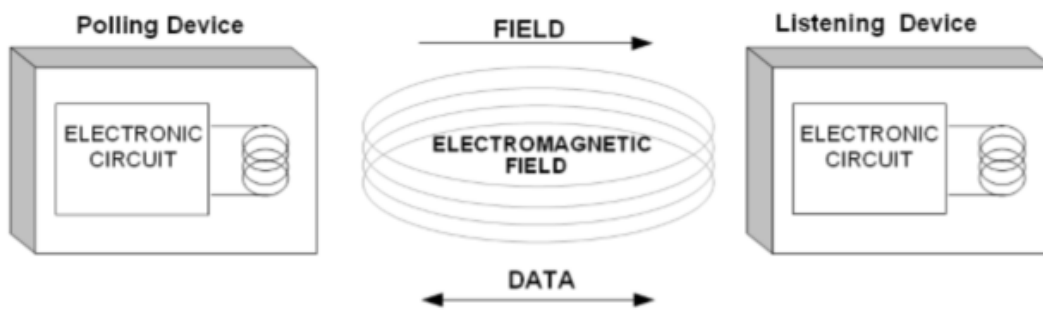
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Like the RFID Standards 14443 and FeliCa NFC uses an inductive coupling. Similar to the transformer principle, the magnetic near-field of two conductor coils is used to couple the polling device (initiator) and listening device (target).



*Figure 1: Polling device (initiator) and listening device (target) configuration [15]*

23. The wireless mobile device and the media system are structured to transmit the at least one digital media file there between via the communication link (e.g., media system allows for the transmission of files between itself and the wireless mobile device; e.g., the mobile device transmits the music file to the media system). Certain aspects of this element are illustrated in the screenshots provided in connection with other allegations herein.

24. The communication link is structured to bypass the security measure of the media

system for a limited permissible use of the communication link by the wireless mobile device for only transferring the at least one digital media file to, and displaying the at least one digital media file on, the media system (e.g., the media system bypasses the security measure (e.g., PIN-based pairing process) of the Bluetooth network using the NFC). Certain aspects of this element are illustrated in the screenshots below and/or those provided in connection with other allegations herein.

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25. Regarding Claim 14, the transmission of the at least one digital media file from the wireless mobile device to the media system completely bypasses the security measure (e.g., the Wi-Fi security settings such as encryption or password requirements are completely bypassed for the purpose of transmitting the digital media file). Certain aspects of this element are illustrated in the screenshots provided in connection with other allegations herein.

26. Regarding Claim 16, the media system is an audio system.

27. Regarding Claim 17, the communication link is a Bluetooth connection.

28. Regarding Claim 20, the digital media file is provided by the wireless mobile device.

29. Defendant's actions complained of herein will continue unless Defendant is enjoined by this court.

30. Defendant's actions complained of herein are causing irreparable harm and monetary damage to Plaintiff and will continue to do so unless and until Defendant is enjoined and restrained by this Court.

31. Plaintiff is in compliance with 35 U.S.C. § 287.

**JURY DEMAND**

Display Technologies, LLC, by counsel, respectfully requests that this cause of action be set for trial by jury.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff asks the Court to:

(a) Enter judgment for Plaintiff on this Complaint on all causes of action asserted herein;

(b) Enter an Order enjoining Defendant, its agents, officers, servants, employees, attorneys, and all persons in active concert or participation with Defendant who receive notice of the order from further infringement of United States Patent No. 9,300,723 (or, in the alternative, awarding Plaintiff running royalties from the time of judgment going forward);

(c) Award Plaintiff damages resulting from Defendant's infringement in accordance with 35 U.S.C. § 284;

(d) Award Plaintiff pre-judgment and post-judgment interest and costs; and

(e) Award Plaintiff such further relief to which the Court finds Plaintiff entitled under law or equity.

Dated: August 29, 2019

Respectfully submitted,

/s/ John M. Bradshaw

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